

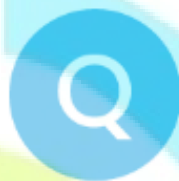


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QUIZZES

Practice Test-1 (Coordination and Control)



10 Questions



7 min

Topics

Steps involved in Nervous Coordination, Neurons (Structure and Types), Reflex Action and Reflex Arc, Nerve Impulse, Sensory Receptors and Their Working

SAEED MDCAT

SAEED MDCAT TEAM

Start Quiz



SAEEDMDCAT

06 : 59



Q

1/10



7 min



Hint

Q : The mechanisms that is found in animals only:

A

Diffusion

B

Nervous control

C

Respiration

D

Hormonal control

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7



Q

2/10



7 min



Hint

Q : In skin, the receptors are concerned with at least _____ different senses.

A

3

B

4

C

5

D

6

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7

06 : 57



Q

3/10



7 min



Hint

Q : Neurons develop from embryonic:

A

Ectoderm

B

Endoderm

C

Mesoderm

D

All A, B, C

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7

06 : 54



Q

4/10



7 min



Hint

Q : Intermediate or relay neurons are also called as:

A

Sensory neurons

B

Motor neurons

C

Associative neurons

D

Glial cells

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7

06 : 53



Q

5/10



7 min



Hint

Q : It is the main nutritional part of neuron:

A

Dendrite

B

Soma

C

Axon

D

Myelin sheath

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7

06 : 52



Q

6/10



7 min



Hint

Q : By definition, sensory neurons connect:

A

Sensory organs with CNS

B

Sensory organs with effectors

C

CNS with effectors

D

Brain with spinal cord

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7



Q

7/10



7 min



Hint

Q : For sound (good) reflex action, we require intact:

A

Spinal cord

B

Cerebellum

C

Hypothalamus

D

Medulla oblogata

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7



8/10



7 min



Hint

Q : Nerve impulse involves:

A

Electrochemical changes

B

Chemical reactions

C

Movement of ions

D

All A, B, C

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

4

5

6

7

8

9

10



9/10



7 min



Hint

Q : Minimum amount of stimulus required to initiate nerve impulse is called:

A

Subthreshold stimulus

B

Threshold stimulus

C

Action potential

D

Variable stimulus

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

4

5

6

7

8

9

10



Q

10/10



7 min



Hint

Q : It correctly represents movement of ions by Na-K pump:

A

 $2K^+$ inside $3Na^+$ outside

B

 $2K^+$ outside $3Na^+$ inside

C

 $3K^+$ inside $2Na^+$ outside

D

 $3K^+$ outside $2Na^+$ inside

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

4

5

6

7

8

9

10



Correct



Unattempted



Incorrect



1/10

Q : The mechanisms that is found in animals only:



Diffusion



Nervous control



Respiration



Hormonal control

SAEED MDCAT

Explanation
SAEED MDCAT TEAM



SAEEDMDCAT

Animals have to respond quickly to the diverse environmental changes in a fraction of time therefore, they need a more efficient coordination system



Correct



Unattempted



Incorrect



2/10

Q : In skin, the receptors are concerned with at least _____ different senses.



3



4



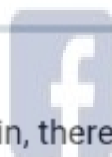
5



6

SAEED MDCAT TEAM

Explanation



SAEEDMDCAT

In the skin, there are at least 3 types of sensory endings involved in touch stimulus sensation. In skin, the receptors are concerned with at least five different senses; touch, pressure, heat, cold, and pain



Correct



Unattempted



Incorrect



3/10

Q : Neurons develop from embryonic:



Ectoderm



Endoderm



Mesoderm



All A, B, C

Explanation

Skin and nervous system develop from ectoderm.



Correct



Unattempted



Incorrect



4/10

Q : Intermediate or relay neurons are also called as:



Sensory neurons



Motor neurons



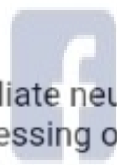
Associative neurons



Glial cells

SAEED MDCAT

Explanation
SAEED MDCAT TEAM



SAEEDMDCAT

Intermediate neurons are present in the CNS only and are involved in the processing of information.



Correct



Unattempted



Incorrect



5/10

Q : It is the main nutritional part of neuron:



Dendrite



Soma



Axon



Myelin sheath

SAEED MDCAT

Explanation
SAEED MDCAT TEAM



SAEEDMDCAT

The central part of neuron which give rise to cytoplasmic processes and contain nucleus and other organelles embedded in cytoplasmic matrix is called soma



Correct



Unattempted



Incorrect



6/10

Q : By definition, sensory neurons connect:



Sensory organs with CNS



Sensory organs with effectors



CNS with effectors



Brain with spinal cord

SAEED MDCAT

Explanation
SAEED MDCAT TEAM

Types of neurons:

- Sensory neurons (Receptor Impulse CNS)
- Intermediate neurons (Sensory neuron Impulse Motor neuron)
- Motor neurons (Intermediate neuron Impulse Effectors)



Correct



Unattempted



Incorrect



7/10

Q : For sound (good) reflex action, we require intact:



Spinal cord



Cerebellum



Hypothalamus



Medulla oblogata

Explanation

In vertebrates, most sensory neurons do not pass directly into the brain, but synapse in the spinal cord. This allows for faster reflex actions to occur by activating spinal motor neurons without the delay of routing signals through the brain. So, the spinal cord must be intact to carry out reflex actions quickly.



Correct



Unattempted



Incorrect



8/10

Q : Nerve impulse involves:



Electrochemical changes



Chemical reactions



Movement of ions



All A, B, C

Explanation

Nerve impulse is a series of electrochemical changes which run throughout the length of neuron.



Correct



Unattempted



Incorrect



9/10

Q : Minimum amount of stimulus required to initiate nerve impulse is called:

A

Subthreshold stimulus

B

Threshold stimulus

C

Action potential

D

Variable stimulus

SAEED MDCAT TEAM

Explanation



SAEEDMDCAT

The stimulus that generates action potential in a neuron is called as threshold stimulus



Correct



Unattempted



Incorrect



10/10

Q : It correctly represents movement of ions by Na-K pump:



2K⁺ inside

3Na⁺ outside



2K⁺ outside

3Na⁺ inside



3K⁺ inside

2Na⁺ outside



3K⁺ outside

2Na⁺ inside

SAEED MDCAT

Explanation
SAEED MDCAT TEAM



SAEEDMDCAT

Na-K pumps actively transport ions against their concentration gradient.

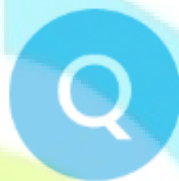


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QUIZZES

Practice Test-2 (Coordination and Control)



10 Questions



7 min

Topics

Synapse, Central Nervous System, Peripheral Nervous System, Nervous Disorders

SAEED MDCAT

Start Quiz

SAEED MDCAT TEAM



SAEEDMDCAT



Q

1/10



7 min



Hint

Q : Neuromuscular junction is an example of:

A

Physical synapse

B

Electrical synapse

C

Chemical synapse

D

Biological synapse

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT



2/10



7 min



Hint

Q : It is the main neurotransmitter for synapses that lie outside the central nervous system:

A

Acetylcholine

B

Adrenalin

C

Serotonin

D

Dopamine

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

06 : 56



Q

3/10



7 min



Hint

Q : Gray matter does not contain cell bodies of:

A

Sensory neurons

B

Associative neurons

C

Motor neurons

D

All A, B, C

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7

06 : 55



Q

4/10



7 min



Hint

Q : Spinal nerves carry impulse towards all of the following except:

A

Brain

B

Spinal cord

C

Effectors

D

Muscles

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7



5/10



7 min



Hint

Q : Central canal containing CSF is in direct contact with:

A

Gray matter of brain

B

White matter of brain

C

Gray matter of spinal cord

D

White matter of spinal cord

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT



Q

6/10



7 min



Hint

Q : Sciatic nerve is an example of:

A

Motor cranial nerve

B

Mixed cranial nerve

C

Motor spinal nerve

D

Mixed spinal nerve

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT



Q

7/10



7 min



Hint

Q : It inhibits secretions of digestive tract:

A

Sympathetic nervous system

B

Parasympathetic nervous system

C

Peripheral nervous system

D

Central nervous system

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT



8/10



7 min



Hint

Q : All of the following actions are accelerated by sympathetic nervous system except:

A

Increase in heart beat

B

Dilation of pupils

C

Increase in breathing rate

D

Increase in peristalsis

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT



Q

9/10



7 min



Hint

Q : Abrupt transient symptoms of _____ nature can be seen in epilepsy:

A

Motor

B

Sensory

C

Psychic

D

All A, B, C

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT



10/10



7 min



Hint

Q : If onset of epilepsy is _____, it suggests organic disease.

A

After birth

B

Before 30 years of age

C

After 50-60 years

D

After 30 years of age

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT



Correct



Unattempted



Incorrect



1/10

Q : Neuromuscular junction is an example of:



Physical synapse



Electrical synapse



Chemical synapse



Biological synapse

Explanation

Acetylcholine is use to transmit impulse from neuron to muscle fiber at neuromuscular junction.



Correct



Unattempted



Incorrect



2/10

Q : It is the main neurotransmitter for synapses that lie outside the central nervous system:



Acetylcholine



Adrenalin



Serotonin



Dopamine

SAEED MDCAT TEAM

Explanation



SAEEDMDCAT

Adrenaline, nor-adrenaline, serotonin and dopamine are mainly used within CNS synapses.



Correct



Unattempted



Incorrect



3/10

Q : Gray matter does not contain cell bodies of:



Sensory neurons



Associative neurons



Motor neurons



All A, B, C

Explanation

Cell bodies of sensory neurons form dorsal root ganglion, which is located outside the CNS.



Correct



Unattempted



Incorrect



4/10

Q : Spinal nerves carry impulse towards all of the following except:



Brain



Spinal cord



Effectors



Muscles

Explanation

Spinal nerves are part of peripheral nervous system and they innervate body organs with spinal cord.



Correct



Unattempted



Incorrect



5/10

Q : Central canal containing CSF is in direct contact with:



Gray matter of brain



White matter of brain



Gray matter of spinal cord



White matter of spinal cord

Explanation

Gray matter of brain lies outside while in spinal cord it is present inside and CSF runs inside the canal.



Correct



Unattempted



Incorrect



6/10

Q : Sciatic nerve is an example of:



Motor cranial nerve



Mixed cranial nerve



Motor spinal nerve



Mixed spinal nerve

Explanation

Sciatic nerve originates from spinal cord.



Correct



Unattempted



Incorrect



7/10

Q : It inhibits secretions of digestive tract:



Sympathetic nervous system



Parasympathetic nervous system



Peripheral nervous system



Central nervous system

Explanation

ANS innervates glands, cardiac and smooth muscles. Secretions of glands of digestive tract occur predominantly in rest conditions.



Correct



Unattempted



Incorrect



8/10

Q : All of the following actions are accelerated by sympathetic nervous system except:



Increase in heart beat



Dilation of pupils



Increase in breathing rate



Increase in peristalsis

SAEED MDCAT TEAM

Explanation



SAEEDMDCAT

Sympathetic nervous system initiates such responses which help in fight and flight responses.



Correct



Unattempted



Incorrect



9/10

Q : Abrupt transient symptoms of _____ nature can be seen in epilepsy:



Motor



Sensory



Psychic



All A, B, C

Explanation

Patients of epilepsy have altered perception of their surroundings and suffer from convulsions.



Correct



Unattempted



Incorrect



10/10

Q : If onset of epilepsy is _____, it suggests organic disease.



After birth



Before 30 years of age



After 50-60 years



After 30 years of age

Explanation

Onset of epilepsy occurs at early age but if onset is in late youth it suggests organic disease.

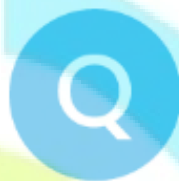


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QUIZZES

Practice Test-3 (Coordination and Control)



10 Questions



7 min

Topics

Hormones- The chemical Messengers,
Endocrine System of Man (Hypothalamus),
Pituitary Gland, Thyroid Gland, Parathyroid
Gland, Pancreas, Adrenal Glands, Gonads

SAEED MDCAT

SAEED MDCAT TEAM

Start Quiz



SAEEDMDCAT

06 : 59



Q

1/10



7 min



Hint

Q : It is true about all hormones:

A

Organic substances

B

Inorganic substances

C

Protein substances

D

Lipid substances

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7

06 : 58



Q

2/10



7 min



Hint

Q : It is an example of neurosecretion:

A

TSH

B

ADH

C

Insulin

D

Glucagon

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7



Q

3/10



7 min



Hint

Q : Secretion of ADH from posterior pituitary is caused by increase in:

A

Blood pressure

B

Blood volume

C

Osmotic pressure

D

Solute concentration

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7



Q

4/10



7 min



Hint

Q : Abnormal development of hands, feet and jaws in an adult due to excess secretion of growth hormone is called:

A

Microcephaly

B

Polydactyl

C

Acromegaly

D

Gigantism

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

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6

7

06 : 55



Q

5/10



7 min



Hint

Q : T3 and T4 work in conjunction with:

A

Calcitonin

B

Somatotropin

C

Gonadotrophin

D

Parathormone

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

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5

6

7

06 : 54



Q

6/10



7 min



Hint

Q : Under activity of parathyroid gland may lead to:

A

Muscular tetany

B

Demineralization of bone

C

Rickets

D

Kidney stone

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

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4

5

6

7

06 : 53



Q

7/10



7 min



Hint

Q : Which of the following hormone depresses blood glucose level?

A

B

C

D

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

1

2

3

4

5

6

7

06 : 50



Q

7/10



7 min



Hint

Q : Which of the following hormone depresses blood glucose level?

A

Insulin

B

Glucagon

C

Cortisol

D

Calcitonin

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

4

5

6

7

8

9

10

06 : 48



Q

8/10



7 min



Hint

Q : A hormone that stimulates production of cortisol is:

A

Adrenaline

B

Nor-adrenaline

C

ACTH

D

Aldosterone

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

4

5

6

7

8

9

10



9/10



7 min



Hint

Q : Development of certain male characters in female is due to tumor of:

A

Adrenal medulla

B

Thyroid

C

Adrenal cortex

D

Testis

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

4

5

6

7

8

9

10



10/10



7 min



Hint

Q : The castrated male shows:

A

Loss of male secondary sex characters

B

Sterility

C

Loss of female characters

D

Both A & B

SAEED MDCAT

SAEED MDCAT TEAM



SAEEDMDCAT

4

5

6

7

8

9

10



Incorrect

Q

1/10

Q : It is true about all hormones:

A

Organic substances

B

Inorganic substances

C

Protein substances

D

Lipid substances

Explanation

Nature of hormones:

- Amino acid derivatives
- Polypeptides
- Proteins
- Steroids



Correct



Unattempted



Incorrect



2/10

Q : It is an example of neurosecretion:



TSH



ADH



Insulin



Glucagon

Explanation

Hormones produced from neurosecretory cells of hypothalamus are called as neurosecretions.



Correct



Unattempted



Incorrect



3/10

Q : Secretion of ADH from posterior pituitary is caused by increase in:



Blood pressure



Blood volume



Osmotic pressure



Solute concentration

Explanation

ADH released from posterior pituitary and target the collecting ducts in nephrons. There, it regulates the reabsorption of water which, as a result, normalize the blood volume and blood pressure.



Correct



Unattempted



Incorrect



4/10

Q : Abnormal development of hands, feet and jaws in an adult due to excess secretion of growth hormone is called:



Microcephaly



Polydactyl



Acromegaly



Gigantism

SAEED MDCAT TEAM

Explanation



SAEEDMDCAT

Excess of growth hormones in early life leads to the abnormal growth of whole body which is called gigantism.



Correct



Unattempted



Incorrect



5/10

Q : T3 and T4 work in conjunction with:



Calcitonin



Somatotropin



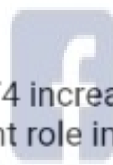
Gonadotrophin



Parathormone

SAEED MDCAT

Explanation
SAEED MDCAT TEAM



SAEEDMDCAT

T3 and T4 increase basal metabolic rate and they also play an important role in growth and development along with STH.

1

2

3

4

5

6

7



Correct



Unattempted



Incorrect



6/10

Q : Under activity of parathyroid gland may lead to:



Muscular tetany



Demineralization of bone



Rickets



Kidney stone

Explanation

Parathyroid gland produces parathormone which is released in response to low blood calcium levels and it regulate calcium from bones to the blood. Its deficiency leads to hypocalcemia.



Correct



Unattempted



Incorrect



7/10

Q : Which of the following hormone depresses blood glucose level?



Insulin



Glucagon



Cortisol



Calcitonin

Explanation

Glucagon and cortisol increase blood glucose level.

1

2

3

4

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6

7



Correct



Unattempted



Incorrect



8/10

Q : A hormone that stimulates production of cortisol is:



Adrenaline



Nor-adrenaline



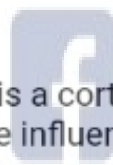
ACTH



Aldosterone

SAEED MDCAT

Explanation
SAEED MDCAT TEAM



SAEEDMDCAT

Cortisol is a corticosteroid and is produced from adrenal cortex, under the influence of ACTH.



Correct



Unattempted



Incorrect



9/10

Q : Development of certain male characters in female is due to tumor of:



Adrenal medulla



Thyroid



Adrenal cortex



Testis

Explanation

A tumor on adrenal cortex leads to its hyperactivity in older females. This is the main cause of appearance of male characters in females.



Correct



Unattempted



Incorrect



10/10

Q : The castrated male shows:



Loss of male secondary sex characters



Sterility



Loss of female characters



Both A & B

Explanation

Removal of male gonads results in lack of testosterone which ultimately results in under developed male secondary sex characters.